MCI Communications Corporation

1801 Pennsylvania Avenue, NW
Washington, DC 20006

99-9

February 17, 1999

Mr. Dale Hatfield
Chief, Office of Engineering and Technology
Federal Communications Commission
2000 M Street, NW, Suite 480
Washington, D.C. 20554

Dear Mr. Hatfield:

Pursuant to §63.100 of the Commission's Rules, MCIWorldCom is submitting the Final Service Disruption Report covering the disruption of service MCI WorldCom experienced on January 21, 1999 at West Orange, New Jersey.

If you have any questions regarding this outage, please do not hesitate to call me directly.

Respectfully,

Bradley C. Stillman

Attachment

cc: Robert Kimball

FINAL SERVICE DISRUPTION REPORT

1/21/99

DATE OUTAGE BEGAN: 1/21/99
TIME OUTAGE BEGAN: 03:00 am ET

DATE OUTAGE RESOLVED: 1/21/99
TIME OUTAGE RESOLVED: 11:30 am ET

DURATION: 8 hrs 30 mins.

GEOGRAPHICAL AREA OF OUTAGE: West Orange, New Jersey

LOCATION: West Orange, New Jersey

NUMBER OF CUSTOMERS OR CIRCUITS AFFECTED: Not Available

ESTIMATED # OF BLOCKED CALLS: 144,252

TYPE OF SERVICE AFFECTED: Voice Traffic

APPARENT OR KNOWN CAUSE OF THE INCIDENT:

West Orange, site technicians were performing a 2 week pre-check list to confirm switch health prior to performing a scheduled major software upgrade. The pre-checks require processors to be removed and restored. This step tests processor individual health and status. During this event the site technician removed and then restored the DCM A processor. The site technician then started the CONFIG ACTIVE SIDE B command without waiting a required 5 minute initialization period. This resulted in a loss of information in the ISDN subsystem. In addition, timing was not distributed to the B side service circuit section of the MegaHub.

METHODS USED TO RESTORE SERVICE:

MCI WorldCom's Switch Technical Support group redistributed the PCM Clock and took the associated PVP processor out of service. The call processing impact was limited to Spans assigned to this single PVP, one of fourteen.

STEPS TAKEN TO PREVENT RECURRENCE:

1. All preload activities have been reviewed with the Vendor, Alcatel (DSC) for root cause analysis of the failure.

2. Preload procedural changes identified in the vendor, Alcatel (DSC) review have been implemented.

3. The vendor, Alcatel (DSC), will review the software code to provide robustness in the software whereby the switch will either not allow the command to configure the standby side while the active side is underway, or issue a warning that if you want to proceed, customer interruptions will occur.

APPLICABLE BEST PRACTICE(S):

Network Reliability Council, A Report to the Nation
Section C, Software and Switching System Reliability

Reference 5.3.3.4 Service interruptions where there is evidence that the problem was triggered by a single hardware failure should be reported immediately to the supplier of the equipment and documented by way of an outage report.

Reference 5.3.3.5 Hardware and software fault recovery design processes should converge to identify why the recovery software does not function properly in all cases of hardware failure

ANALYSIS OF EFFECTIVENESS OF BEST PRACTICES:

MCI WorldCom has reviewed the Best Practices recommendations outlined in section 5.3 and supports these recommendations. MCI WorldCom agrees and utilizes these best practice recommendations as outlined.

The MCI WorldCom standard hardware outage analysis practices address immediate supplier notification and review of the fault recovery hardware and software performance. All system recovery actions were followed by MCI WorldCom in this situation.